PB-240 341

SENECA LAKE, SCHUYLER COUNTY, NEW YORK

Pacific Northwest Environmental Research Laboratory

Prepared for:

National Environmental Research Center, Las Vegas, Nevada
New York National Guard
National Environmental Research Center, Corvallis, Oregon
New York State Department of Environmental Conservation

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16. ABSTRACT
Annual total phosphorus and total nitrogen loadings to the lake were estimated and subdivded according to either point or non-point source origin. An assessment of the lake's trophic condition and limiting nutrient is also provided. All data collected by the U.S.E.P.A. National Eutrophication Survey during the one year study of the lake and its tributaries are included in the report.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
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REPORT

ON

SENECA LAKE

SCHUYLER COUNTY

NEW YORK

EPA REGION II

WORKING PAPER No. 170

WITH THE COOPERATION OF THE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AND THE

NEW YORK NATIONAL GUARD

DECEMBER, 1974

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F O R E W O R D

The National Eutrophication Survey was initiated in 1972 in response to an Administration commitment to investigate the nationwide threat of accelerated eutrophication to fresh water lakes and reservoirs.

OBJECTIVES

The Survey was designed to develop, in conjunction with state environmental agencies, information on nutrient sources, concentrations, and impact on selected freshwater lakes as a basis for formulating comprehensive and coordinated national, regional, and state management practices relating to point-source discharge reduction and non-point source pollution abatement in lake watersheds.

ANALYTIC APPROACH

The mathematical and statistical procedures selected for the Survey's eutrophication analysis are based on related concepts that:

a. A generalized representation or model relating sources, concentrations, and impacts can be constructed.

b. By applying measurements of relevant parameters associated with lake degradation, the generalized model can be transformed into an operational representation of a lake, its drainage basin, and related nutrients.

c. With such a transformation, an assessment of the potential for eutrophication control can be made.

LAKE ANALYSIS

In this report, the first stage of evaluation of lake and watershed data collected from the study lake and its drainage basin is documented. The report is formatted to provide state environmental agencies with specific information for basin planning [§303(e)], water quality criteria/standards review [§303(c)], clean lakes [§314(a,b)], and water quality monitoring [§106 and §305(b)] activities mandated by the Federal Water Pollution Control Act Amendments of 1972.

Beyond the single lake analysis, broader based correlations between nutrient concentrations (and loading) and trophic condition are being made to advance the rationale and data base for refinement of nutrient water quality criteria for the Nation's fresh water lakes. Likewise, multivariate evaluations for the relationships between land use, nutrient export, and trophic condition, by lake class or use, are being developed to assist in the formulation of planning guidelines and policies by EPA and to augment plans implementation by the states.

ACKNOWLEDGMENT

The staff of the National Eutrophication Survey (Office of Research & Development, U. S. Environmental Protection Agency) expresses sincere appreciation to the New York Department of Environmental Conservation for professional involvement and to the New York National Guard for conducting the tributary sampling phase of the Survey.

Henry L. Diamond, Commissioner of the New York Department of Environmental Conservation, and Leo J. Hetling, Director, and Italo G. Carcich, Senior Sanitary Engineer, Environmental Quality Research, Department of Environmental Conservation, provided invaluable lake documentation and counsel during the Survey.

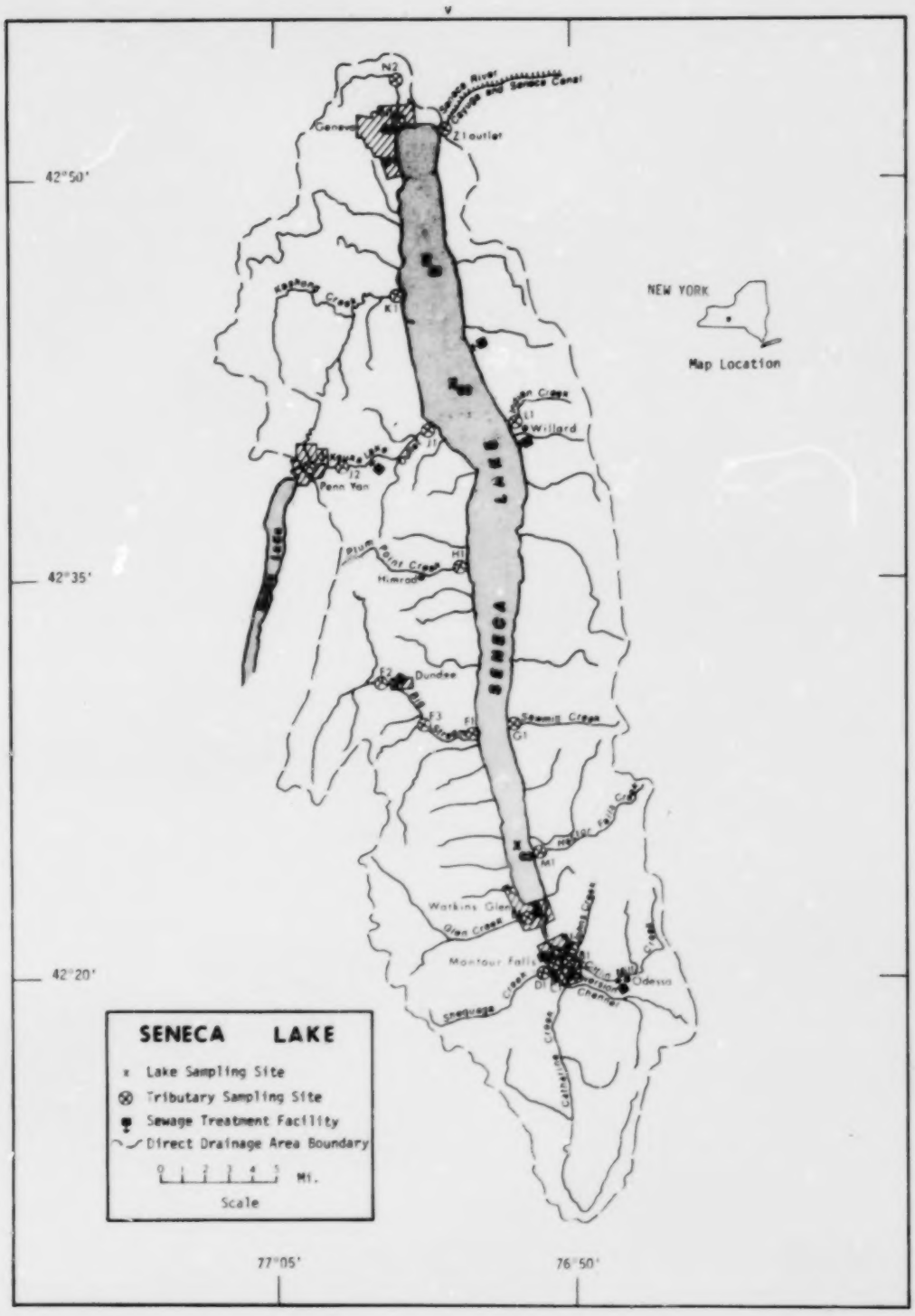
Major General John C. Baker, the Adjutant General of New York, and Project Officer Lieutenant Colonel Fred Peters, who directed the volunteer efforts of the New York National Guardsmen, are also gratefully acknowledged for their assistance to the Survey.

NATIONAL EUTROPHICATION SURVEY

STUDY LAKES

STATE OF NEW YORK

LAKE NAME	COUNTY
Allegheny Reservoir	Cattaraugas, NY; McLean, Warren, PA
Black	St. Lawrence
Canadaigua	Ontario
Cannonsville	Delaware
Carry Falls	St. Lawrence
Cassadaga	Chautauqua
Cayuga	Seneca, Tompkins
Champlain	Clinton, Essex, NY; Addison, Chittenden, Franklin, VT
Chautauqua	Chautauqua
Conesus	Livingston
Cross	Cayuga, Onondaga
Goodyear	Otsego
Huntington	Sullivan
Keuka	Ontario
Long	Hamilton
Lower St. Regis	Franklin
Otter	Cayuga
Owasco	Cayuga
Raquette Pond	Franklin
Round	Saratoga
Sacandaga Res.	Fulton, Saratoga
Saratoga	Saratoga
Schroon	Essex, Warren
Seneca	Seneca, Schyler, Yates
Swan	Sullivan
Swinging Bridge Res.	Sullivan


42°50'
42°35'
42°20'
77°05'
76°50'
N2
Seneca River
Cayuga and Seneca Canal
Geneva
Z1 outlet
Keuka Lake
K1
Keuka Outlet
J1
J2
Penn Yan
Willard
LAKE
SENECA
Plum Point Creek
H1
Himrod
Dundee
F2
F3
Stevens Creek
G1
M1
Watkins Glen
Glen Creek
Montour Falls
Odessa
Catherine Creek
NEW YORK
Map Location
SENECA LAKE
Lake Sampling Site
Tributary Sampling Site
Sewage Treatment Facility
Direct Drainage Area Boundary
0 1 2 3 4 5 Mi.
Scale

SENECA LAKE

STORET NO. 3635

I. CONCLUSIONS

A. Trophic Condition:

Survey data indicate that Seneca Lake is mesotrophic. Of the 26 New York lakes sampled in the fall of 1972, when essentially all were well-mixed, four had less mean total phosphorus, seven had less mean dissolved phosphorus, and 15 had less mean inorganic nitrogen. For all New York data, eight lakes had less mean chlorophyll a, but only one had greater Secchi disc transparency.

It is noted that in a previous study (Hamilton, 1966), Seneca Lake was considered to be eutrophic. However, the mean total phosphorus values on which this conclusion was based were greater than the Survey values (i.e., 22 µg/l vs. the Survey 12 µg/l total phosphorus).

B. Rate-Limiting Nutrient:

The algal assay results, lake chemistry, and data from other sources (Hamilton, op. cit.) indicate that Seneca Lake is limited by phosphorus.

C. Nutrient Controllability:

1. Point sources--During the sampling year, Seneca Lake received a total phosphorus load at a rate in excess of that

proposed by Vollenweider (in press) as "dangerous"; i.e., a eutrophic rate (see page 16). Of that load, it is calculated that municipal waste treatment facilities contributed about 68%.

The state-wide ban on phosphates in detergents may be expected to reduce the phosphorus loads from wastewater treatment plants by about 50%. This reduction, plus 15 to 20% removal of the remaining phosphorus at the treatment plants of the three major municipal contributors (Geneva City, Penn Yan, and Watkins Glen), would achieve a loading rate equal to Vollenweider's oligotrophic rate and should result in significant improvement of the trophic condition of Seneca Lake.

2. Non-point sources (see page 15)--For most of the Seneca Lake tributaries, the phosphorus exports were similar to those of the unimpacted tributaries to nearby Keuka Lake*. However, the P exports of Big Stream, Johns Creek, and Catherine Creek were significantly higher than the other Seneca Lake tributaries and indicate unmeasured or underestimated point sources were impacting those streams.

In all, non-point sources are estimated to have contributed 28% of the total phosphorus load to Seneca Lake during the sampling year.

* See Working Paper No. 160.

II. LAKE AND DRAINAGE BASIN CHARACTERISTICS

A. Lake Morphometry†:

1. Surface area: 43,328 acres.
2. Mean depth: 291 feet.
3. Maximum depth: 618 feet.
4. Volume: 12,592,837 acre/feet.
5. Mean hydraulic retention time: 33.7 years.

B. Tributary and Outlet:
(See Appendix A for flow data)

1. Tributaries -

Name	Drainage area*	Mean flow*
Johns Creek	5.0 mi^2	6.8 cfs
Diversion Channel	31.4 mi^2	33.4 cfs
Catherine Creek	19.3 mi^2	19.8 cfs
Shequaga Creek	15.5 mi^2	21.0 cfs
Glen Creek	22.8 mi^2	30.9 cfs
Big Stream	30.5 mi^2	40.9 cfs
Sawmill Creek	5.2 mi^2	2.0 cfs
Plumb Point Creek	5.6 mi^2	8.0 cfs
Keuka Lake outlet	208.0 mi^2	154.2 cfs
Kashong Creek	30.7 mi^2	8.4 cfs
Indian Creek	9.5 mi^2	4.3 cfs
Hector Falls Creek	12.8 mi^2	17.3 cfs
Marsh Creek	7.5 mi^2	1.1 cfs
Minor tributaries & immediate drainage -	232.5 mi^2	168.0 cfs
Totals	636.3 mi^2	516.1 cfs

2. Outlet -

Seneca River	704.0 mi^2**	516.1 cfs

† Birge and Juday, 1914.
* Drainage areas are accurate within ±5%, except for small basins (±10%); mean daily flows are accurate within ±5 to 25%; and normalized mean monthly flows are accurate within ±15%.
** Includes area of lake.

C. Precipitation*:

1. Year of sampling: 28.8 inches.

2. Mean annual: 30.7 inches.

* See Working Paper No. 1, "Survey Methods".

III. LAKE WATER QUALITY SUMMARY

Seneca Lake was sampled three times during the open-water season of 1972 by means of a pontoon-equipped Huey helicopter. Each time, samples for physical and chemical parameters were collected from three stations on the lake and from a number of depths at each station (see map, page v). During each visit, a single depth-integrated (15 feet to surface) sample was composited from the stations for phytoplankton identification and enumeration; and during the last visit, a single five-gallon depth-integrated sample was composited for algal assays. Also each time, a depth-integrated sample was collected from each of the stations for chlorophyll a analysis. The maximum depths sampled were 287 feet at station 1, 323 feet at station 2, and 323 feet at station 3.

The results obtained are presented in full in Appendix B, and the data for the fall sampling period, when the lake essentially was well-mixed, are summarized below. Note, however, the Secchi disc summary is based on all values.

For differences in the various parameters at the other sampling times, refer to Appendix B.

A. Physical and chemical characteristics:

FALL VALUES

(10/14/72)

Parameter	Minimum	Mean	Median	Maximum
Temperature (Cent.)	4.0	10.6	12.5	13.1
Dissolved oxygen (mg/l)	8.0	10.5	10.1	16.2
Conductivity (μmhos)	700	773	800	850
pH (units)	7.8	8.1	8.1	8.3
Alkalinity (mg/l)	78	88	86	98
Total P (mg/l)	0.007	0.009	0.008	0.014
Dissolved P (mg/l)	0.005	0.007	0.006	0.013
NO_2 + NO_3 (mg/l)	0.240	0.310	0.290	0.420
Ammonia (mg/l)	0.020	0.035	0.040	0.050
		ALL VALUES		
Secchi disc (inches)	60	157	198	228

B. Biological characteristics:

1. Phytoplankton -

Sampling Date	Dominant Genera	Number per ml
05/16/72	1. Dinobryon	931
	2. Oocystis	705
	3. Asterionella	362
	4. Cryptomonas	136
	5. Peridinium	126
	Other genera	281
	Total	2,541
07/23/72	1. Cyclotella	141
	2. Cryptomonas	120
	3. Oocystis	80
	4. Dinobryon	80
	5. Polycystis	74
	Other genera	152
	Total	647
10/14/72	1. Dinobryon	532
	2. Fragilaria	482
	3. Flagellates	412
	4. Cryptomonas	211
	5. Anabaena	211
	Other genera	642
	Total	2,490

2. Chlorophyll *a* -
(Because of instrumentation problems during the 1972 sampling, the following values may be in error by plus or minus 20 percent.)

Sampling Date	Station Number	Chlorophyll *a* (µg/l)
05/16/72	01	0.5
	02	0.2
	03	0.2
07/23/72	01	10.4
	02	10.4
	03	18.3
10/14/72	01	6.2
	02	5.4
	03	3.0

C. Limiting Nutrient Study:

1. Autoclaved, filtered, and nutrient spiked -

Spike (mg/l)	Ortho P Conc. (mg/l)	Inorganic N Conc. (mg/l)	Maximum yield (mg/l-dry wt.)
Control	0.007	0.237	0.1
0.010 P	0.017	0.237	3.9
0.020 P	0.027	0.237	5.2
0.050 P	0.057	0.237	5.7
0.050 P + 5.0 N	0.057	5.237	18.8
0.050 P + 10.0 N	0.057	10.237	17.9
10.0 N	0.007	10.237	0.1

2. Discussion -

The control yield of the assay alga, *Selenastrum capricornutum*, indicates that the potential primary productivity of Seneca Lake was low at the time the sample was collected.

Also, the increased yields with increased levels of orthophosphorus, and the lack of response when only nitrogen was added, show that Seneca lake was phosphorus limited at the time the assay sample was collected. The lake data also indicate phosphorus limitation at all sampling times (nitrogen to phosphorus ratios were greater than 30 to 1).

IV. NUTRIENT LOADINGS
(See Appendix C for data)

For the determination of nutrient loadings, the New York National Guard collected monthly near-surface grab samples from each of the tributary sites indicated on the map (page v), except for the high runoff months of April and May when two samples were collected. Sampling was begun in November, 1972, and was completed in October, 1973.

Through an interagency agreement, stream flow estimates for the year of sampling and a "normalized" or average year were provided by the New York District Office of the U.S. Geological Survey for the tributary sites nearest the lake.

In this report, nutrient loads for sampled tributaries were determined by using a modification of a U.S. Geological Survey computer program for calculating stream loadings*. Nutrient loadings for unsampled "minor tributaries and immediate drainage ("ZZ" of U.S.G.S) were estimated by using the means of the nutrient loads, in $lbs/mi^2/year$, at stations E-1, H-1, K-1, L-1, and M-1 and multiplying the means by the ZZ area in mi^2.

Due to insufficient samples and flow data for the outlet station of Seneca Lake (Z-1), data from station N-1 of Cayuga Lake were used instead. The point sources of Waterloo and Seneca Falls were subtracted from the calculated loads to obtain outflow nutrient loads.

Nutrient loads given for tributaries are those measured minus point-source loads, if any.

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* See Working Paper No. 1.

The operators of the Dundee, Penn Yan, Montour Falls, Geneva City GPP, Geneva City HPP, and Watkins Glen wastewater treatment plants provided monthly effluent samples and corresponding flow data.

However, Willard Hospital, Sampson Annex, and Odessa did not participate in the Survey and nutrient loads were estimated at 2.5 lbs P and 7.5 lbs N/ capita/year.

A. Waste Sources*:

1. Known municipal -

Name	Pop. Served	Treatment	Mean Flow (mgd)	Receiving Water
Penn Yan	5,770	trickling filter	0.988	Keuka Lake outlet
Dundee	1,468	cont. stab. + pond	0.277	Big Stream
Montour Falls	1,600	trickling filter	0.131	Catherine Creek
Geneva City GPP	16,288	prim. clarifier	2.048	Seneca Lake
Geneva City HPP	1,000	prim. clarifier	2.197	Seneca Lake
Watkins Glen	2,716	prim. clarifier	0.385	Seneca Lake
Willard Hosp. Sampson Annex	4,000	trickling filter	0.400**	Seneca Lake
Odessa	606	septic tanks	0.061**	Catlin Mill Creek

2. Known industrial - None

* Anonymous, 1971.
** Estimated at 100 gal/capita/day.

B. Annual Total Phosphorus Loading - Average Year:

1. Inputs -

Source	lbs P/ yr	% of total
a. Tributaries (non-point load) -		
Johns Creek	530	0.4
Diversion Channel	300	0.2
Catherine Creek	1,810	1.2
Shequaga Creek	850	0.6
Glen Creek	1,730	1.2
Big Stream	7,830	5.3
Sawmill Creek	40	<0.1
Plumb Point Creek	270	0.2
Keuka Lake outlet	8,990	6.1
Kashong Creek	520	0.4
Indian Creek	200	0.1
Hector Falls Creek	680	0.5
Marsh Creek	340	0.2
b. Minor tributaries & immediate drainage (non-point load) -	10,000	6.8
c. Known municipal STP's -		
Penn Yan	13,630	9.2
Dundee	3,130	2.1
Montour Falls	1,650	1.1
Geneva City GPP	22,220	15.0
Geneva City HPP	32,910	22.3
Watkins Glen	15,140	10.2
Willard Hospital, Sampson Annex	10,000	6.8
Odessa	1,520	1.0
d. Septic tanks* -	6,690	4.5
e. Known industrial - None	-	-
f. Direct precipitation** -	6,760	4.6
Total	147,740	100.0

* Hamilton, 1966.
** See Working Paper No. 1.

2. Outputs -

   Lake outlet - Seneca River 29,600

3. Net annual P accumulation - 118,140 pounds

C. Annual Total Nitrogen Loading - Average Year:

1. Inputs -

Source	lbs N/ yr	% of total
a. Tributaries (non-point load) -		
Johns Creek	19,880	0.9
Diversion Channel	83,400	3.7
Catherine Creek	48,340	2.2
Shequaga Creek	44,890	2.0
Glen Creek	48,780	2.2
Big Stream	126,950	5.7
Sawmill Creek	6,090	0.3
Plumb Point Creek	24,740	1.1
Keuka Lake outlet	362,590	16.3
Kashong Creek	54,940	2.5
Indian Creek	8,430	0.4
Hector Falls Creek	28,060	1.3
Marsh Creek	4,010	0.2
b. Minor tributaries & immediate drainage (non-point load) -	532,660	23.9
c. Known municipal STP's -		
Penn Yan	53,950	2.4
Dundee	9,860	0.4
Montour Falls	7,290	0.3
Geneva City GPP	102,730	4.6
Geneva City HPP	149,550	6.7
Watkins Glen	37,580	1.7
Willard Hospital, Sampson Annex	30,000	1.3
Odessa	4,550	0.2
d. Septic tanks* -	22,220	1.0
e. Known industrial - None	-	-
f. Direct precipitation** -	417,420	18.7
Total	2,228,910	100.0

* Hamilton, 1966.
** See Working Paper No. 1.

2. Outlet -

   Lake outlet - Seneca River 1,146,970

3. Net annual N accumulation - 1,081,940 pounds

D. Mean Annual Non-point Nutrient Export by Subdrainage Area:

Tributary	lbs $P/mi^2/yr$	lbs $N/mi^2/yr$
Johns Creek	106	3,984
Diversion Channel	10	2,656
Catherine Creek	94	2,505
Shequaga Creek	55	2,896
Glen Creek	76	2,140
Big Stream	257	4,162
Sawmill Creek	8	1,160
Plumb Point Creek	48	4,442
Keuka Lake outlet	43	1,743
Kashong Creek	17	1,790
Indian Creek	21	889
Hector Falls Creek	53	2,192
Marsh Creek	45	531

E. Yearly Loading Rates:

In the following table, the existing phosphorus loading rates are compared to those proposed by Vollenweider (in press). Essentially, his "dangerous" rate is the rate at which the receiving waters would become eutrophic or remain eutrophic; his "permissible" rate is that which would result in the receiving water remaining oligotrophic or becoming oligotrophic if morphometry permitted. A mesotrophic rate would be considered one between "dangerous" and "permissible".

	Total Phosphorus		Total Nitrogen	
Units	Total	Accumulated	Total	Accumulated
lbs/acre/yr	3.4	2.7	51.4	25.0
grams/m^2/yr	0.38	0.31	5.8	2.8

Vollenweider loading rates for phosphorus ($g/m^2/yr$) based on mean depth and mean hydraulic retention time of Seneca Lake:

"Dangerous" (eutrophic rate)	0.32
"Permissible" (oligotrophic rate)	0.16

V. LITERATURE REVIEWED

Anonymous, 1971. Inventory of municipal waste facilities. Publ. No. OWP-1, Vol. 2, EPA, Washington, D.C.

Birge, Edward A., and Chancey Juday, 1914. A limnological study of the Finger Lakes of New York. Bull. 32, U.S. Bur. Fish.

Hamilton, D. Heyward, Jr., 1966. A study of phytoplankton and nutrients in Lakes Cayuga and Seneca. Publ. #14, Cornell Water Res. Ctr., Ithaca.

Vollenweider, Richard A. (in press). Input-output models. Schweiz. A. Hydrol.

VII. APPENDICES

APPENDIX A

TRIBUTARY FLOW DATA

TRIBUTARY FLOW INFORMATION FOR NEW YORK 11/26/74

LAKE CODE 3635 SENECA LAKE

TOTAL DRAINAGE AREA OF LAKE 704.00

TRIBUTARY	SUB-DRAINAGE AREA	NORMALIZED FLOWS JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
3635A1	4.99	7.10	7.40	17.00	16.00	8.10	4.30	2.70	1.80	2.10	3.20	5.70	6.90	6.85
3635B1	31.40	32.00	39.00	85.00	77.00	44.00	22.00	12.00	8.80	8.90	16.00	24.00	32.00	33.35
3635C1	19.30	18.00	24.00	52.00	46.00	28.00	13.00	6.20	5.20	4.80	9.60	13.00	18.00	19.79
3635D1	15.50	22.00	23.00	52.00	48.00	25.00	13.00	8.30	5.60	6.30	9.80	18.00	21.00	20.98
3635E1	22.80	32.00	34.00	76.00	71.00	37.00	20.00	12.00	8.30	9.40	14.00	26.00	32.00	30.94
3635F1	30.50	43.00	45.00	100.00	94.00	49.00	26.00	16.00	11.00	12.00	19.00	34.00	42.00	40.88
3635G1	5.25	2.10	2.20	4.90	4.60	2.40	1.30	0.80	0.50	0.60	0.90	1.70	2.00	2.00
3635H1	5.57	8.30	8.70	20.00	18.00	9.50	5.10	3.10	2.10	2.40	3.70	6.70	8.20	7.98
3635J1	208.00	180.00	190.00	270.00	230.00	170.00	150.00	98.00	69.00	63.00	83.00	130.00	220.00	154.25
3635K1	30.70	5.60	10.00	29.00	26.00	13.00	4.40	0.90	0.70	0.20	1.50	2.50	7.30	8.41
3635L1	9.48	3.90	5.10	11.00	9.90	6.10	2.90	1.30	1.10	1.00	2.10	2.90	4.00	4.27
3635M1	12.80	17.00	20.00	44.00	40.00	22.00	11.00	6.10	4.60	4.70	8.20	13.00	17.00	17.28
3635N1	7.55	0.90	1.20	2.70	3.30	1.50	0.80	0.40	0.30	0.20	0.40	0.50	0.90	1.09
3635P1	704.00	459.61	459.61	689.41	1029.12	899.23	679.42	389.67	379.68	269.77	259.78	319.73	359.69	516.05
3635ZZ	300.16	160.00	190.00	430.00	390.00	220.00	110.00	59.00	44.00	45.00	80.00	130.00	160.00	167.98

SUMMARY

TOTAL DRAINAGE AREA OF LAKE = 704.00
SUM OF SUB-DRAINAGE AREAS = 704.00

TOTAL FLOW IN = 6199.37
TOTAL FLOW OUT = 6194.71

NOTE *** TRIB J2 WAS DROPPED - TRIB 35P1=04N1

MEAN MONTHLY FLOWS AND DAILY FLOWS

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
3635A1	11	72	14.00	4	7.10				
	12	72	22.00	2	10.00				
	1	73	10.00	4	16.00				
	2	73	9.60	3	52.00				
	3	73	15.00	3	13.00				
	4	73	19.00	7	27.00	21	7.40		
	5	73	9.00	5	9.30	18	9.70		
	6	73	4.20	16	3.20				
	7	73	1.60	7	1.80				
	8	73	1.10	4	1.70				
	9	73	1.30	15	2.40				
	10	73	1.20	13	1.10				

LAKE CODE 3635 SENECA LAKE

MEAN MONTHLY FLOWS AND DAILY FLOWS

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
363581	11	72	74.00	4	17.00				
	12	72	110.00	2	50.00				
	1	73	47.00	4	77.00				
	2	73	53.00	3	220.00				
	3	73	71.00	3	81.00				
	4	73	95.00	7	120.00	21	40.00		
	5	73	49.00	5	48.00	18	53.00		
	6	73	14.00	16	14.00				
	7	73	11.00	7	8.80				
	8	73	8.10	4	12.00				
	9	73	9.30	15	20.00				
	10	73	7.00	13	5.80				
363501	11	72	40.00	4	9.60				
	12	72	62.00	2	28.00				
	1	73	26.00	4	43.00				
	2	73	33.00	3	130.00				
	3	73	44.00	3	49.00				
	4	73	57.00	7	72.00	21	24.00		
	5	73	31.00	5	30.00	18	34.00		
	6	73	9.60	16	8.40				
	7	73	5.80	7	4.80				
	8	73	4.80	4	7.00				
	9	73	5.00	15	11.00				
	10	73	4.20	13	3.50				
363501	11	72	45.00	4	22.00				
	12	72	62.00	2	28.00				
	1	73	32.00	4	49.00				
	2	73	29.00	3	180.00				
	3	73	46.00	3	32.00				
	4	73	58.00	7	82.00	21	22.00		
	5	73	28.00	5	28.00	18	30.00		
	6	73	13.00	16	9.80				
	7	73	4.90	7	5.60				
	8	73	3.30	4	5.30				
	9	73	3.40	15	7.10				
	10	73	3.20	13	2.90				
3635E1	11	72	65.00	4	32.00				
	12	72	95.00	2	41.00				
	1	73	47.00	4	72.00				
	2	73	42.00	3	270.00				
	3	73	68.00	3	48.00				
	4	73	86.00	7	120.00	21	33.00		
	5	73	41.00	5	42.00	18	44.00		
	6	73	20.00	16	15.00				
	7	73	7.10	7	8.30				
	8	73	4.90	4	7.70				
	9	73	5.60	15	11.00				
	10	73	4.50	13	4.20				

TRIBUTARY FLOW INFORMATION FOR NEW YORK 11/26/74

LAKE CODE 3635 SENECA LAKE

MEAN MONTHLY FLOWS AND DAILY FLOWS

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
3635F1	11	72	100.00	4	22.00				
	12	72	150.00	2	69.00				
	1	73	63.00	4	100.00				
	2	73	61.00	3	280.00				
	3	73	84.00	3	94.00				
	4	73	110.00	7	160.00	21	44.00		
	5	73	54.00	5	56.00	18	59.00		
	6	73	25.00	16	20.00				
	7	73	9.50	7	11.00				
	8	73	10.00	4	16.00				
	9	73	13.00	15	27.00				
	10	73	7.20	13	6.30				
3635G1	11	72	4.70	4	1.60				
	12	72	6.40	2	3.00				
	1	73	3.10	4	4.80				
	2	73	2.90	3	15.00				
	3	73	4.20	3	3.80				
	4	73	5.60	7	7.40	21	2.30		
	5	73	2.70	5	2.70	18	2.90		
	6	73	1.10	16	0.90				
	7	73	0.60	7	0.60				
	8	73	0.40	4	0.60				
	9	73	0.50	15	1.00				
	10	73	0.30	13	0.30				
3635H1	11	72	21.00	4	4.30				
	12	72	28.00	2	14.00				
	1	73	12.00	5	12.00				
	2	73	12.00	4	26.00				
	3	73	17.00	4	24.00				
	4	73	22.00	7	28.00	21	8.40		
	5	73	11.00	5	11.00	19	11.00		
	6	73	5.00	3	6.40				
	7	73	2.90	29	9.00				
	8	73	1.90	22	1.40				
	9	73	2.50	9	1.40				
	10	73	1.40	6	1.20				
3635J1	11	72	317.00	4	287.00				
	12	72	495.00	2	321.00				
	1	73	458.00	6	522.00				
	2	73	368.00	4	424.00				
	3	73	440.00	4	329.00				
	4	73	548.00	7	587.00	21	503.00		
	5	73	374.00	19	274.00				
	6	73	240.00	3	287.00				
	7	73	59.00	29	97.00				
	8	73	60.00	18	60.00				
	9	73	90.00	9	97.00				
	10	73	136.00	6	103.00				

TRIBUTARY FLOW INFORMATION FOR NEW YORK 11/26/74

LAKE CODE 3635 SENECA LAKE

MEAN MONTHLY FLOWS AND DAILY FLOWS

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
3635K1	11	72	7.50	4	16.00				
	12	72	26.00	2	12.00				
	1	73	9.60	6	8.40				
	2	73	17.00	4	58.00				
	3	73	38.00	4	100.00				
	4	73	35.00	7	74.00	21	9.30		
	5	73	16.00	5	18.00	19	8.20		
	6	73	13.00	3	7.90				
	7	73	1.20	29	0.90				
	8	73	0.60	18	1.00				
	9	73	0.40	9	0.60				
	10	73	0.60	6	0.10				
3635L1	11	72	8.90	4	2.10				
	12	72	14.00	2	6.20				
	1	73	5.70	6	5.60				
	2	73	6.90	4	14.00				
	3	73	9.20	4	14.00				
	4	73	12.00	7	15.00	21	5.10		
	5	73	6.80	5	6.40	19	6.90		
	6	73	2.10	3	3.40				
	7	73	1.20	29	4.20				
	8	73	1.00	19	0.80				
	9	73	1.00	9	0.70				
	10	73	0.90	6	0.80				
3635M1	11	72	36.00	4	13.00				
	12	72	55.00	2	24.00				
	1	73	25.00	4	40.00				
	2	73	26.00	3	130.00				
	3	73	38.00	3	35.00				
	4	73	49.00	7	65.00	21	20.00		
	5	73	24.00	5	24.00	18	26.00		
	6	73	9.40	16	7.70				
	7	73	4.70	7	4.40				
	8	73	3.40	4	5.30				
	9	73	3.90	15	8.00				
	10	73	3.10	13	2.70				
3635N1	11	72	1.90	5	1.40				
	12	72	3.20	2	1.60				
	1	73	1.40	6	1.30				
	2	73	1.60	4	3.60				
	3	73	3.70	4	3.40				
	4	73	3.70	8	7.80	21	1.80		
	5	73	1.10	5	1.20	19	0.80		
	6	73	0.80	3	0.90				
	7	73	0.30	29	0.20				
	8	73	0.10	22	0.20				
	9	73	0.10	9	0.20				
	10	73	0.20	6	0.20				

TRIBUTARY FLOW INFORMATION FOR NEW YORK 11/26/74

LAKE CODE 3635 SENECA LAKE

MEAN MONTHLY FLOWS AND DAILY FLOWS

TRIBUTARY	MONTH	YEAR	MEAN FLOW	DAY	FLOW	DAY	FLOW	DAY	FLOW
3635P1	1	73	1500.00	6	2500.00				
	2	73	940.00	4	950.00				
	3	73	510.00	4	1500.00				
	4	73	1400.00	19	900.00	26	690.00		
	5	73	980.00	17	1080.00	31	890.00		
3635ZZ	11	72	360.00						
	12	72	510.00						
	1	73	230.00						
	2	73	250.00						
	3	73	370.00						
	4	73	480.00						
	5	73	240.00						
	6	73	94.00						
	7	73	45.00						
	8	73	33.00						
	9	73	37.00						
	10	73	30.00						

APPENDIX B

PHYSICAL and CHEMICAL DATA

STORET RETRIEVAL DATE 74/11/26

363501
42 47 30.0 076 57 20.0
SENECA LAKE
36 NEW YORK

11EPALES
3

2111202
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00630 NO2&NO3 N-TOTAL MG/L	00610 NH3-N TOTAL MG/L	00665 PHOS-TOT MG/L P	00666 PHOS-DIS MG/L P
72/05/16	14 00	0000	6.4	12.2	196	1	8.10	100	0.350	0.030	0.019	0.012
	14 00	0010	5.0	12.4		1	8.10	100	0.350	0.030	0.017	0.012
	14 00	0030	4.9	12.8		1	8.00	98	0.350	0.030	0.015	0.011
72/07/23	20 10	0000			84	730	8.00	81	0.080	0.060	0.020	0.009
	20 10	0004	24.5	10.0		730	8.00	81	0.090	0.050	0.015	0.014
	20 10	0015	19.8	9.6		800	7.50	92	0.300	0.100	0.014	0.006
	20 10	0050	11.3	10.4		800	7.50	96	0.330	0.100	0.010	0.007
	20 10	0100	7.7	10.8		800	7.40	90	0.320	0.090	0.025	0.007
	20 10	0200	4.5	11.6		820	7.30	92	0.370	0.060	0.019	0.009
	20 10	0247	4.1	11.8		820	7.30	94	0.410	0.080	0.032	0.014
72/10/14	18 05	0000			200	810	8.20	86	0.250	0.040	0.007	0.005
	18 05	0004	13.0	9.8		825	8.15	86	0.250	0.040	0.008	0.005
	18 05	0015	13.1	10.0		815	8.20	86	0.250	0.040	0.008	0.006
	18 05	0030	13.0	10.0		815	8.20	86	0.240	0.030	0.008	0.005
	18 05	0060	13.0	10.0		815	8.15	85	0.240	0.040	0.008	0.005
	18 05	0085	13.0	9.8		815	8.20	88	0.240	0.040	0.008	0.005
	18 05	0118	12.8	10.0		815	8.15	85	0.250	0.030	0.007	0.005

DATE FROM TO	TIME OF DAY	DEPTH FEET	32217 CHLRPHYL A UG/L
72/05/16	14 00	0000	0.5J
72/07/23	20 10	0000	10.4J
72/10/14	18 05	0000	6.2J

J VALUE KNOWN TO BE IN ERROR

25

STORET RETRIEVAL DATE 74/11/26

363502
42 42 30.0 076 55 58.0
SENECA LAKE
36 NEW YORK

11EPALES
3

2111202
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00630 NO2&NO3 N-TOTAL MG/L	00610 NH3-N TOTAL MG/L	00665 PHOS-TOT MG/L P	00666 PHOS-DIS MG/L P
72/05/16	16 40	0000	7.1	12.2	228	1	8.00	100	0.400	0.030	0.017	0.013
	16 40	0010	5.2	12.8		1	8.10	100	0.350	0.020	0.024	0.011
	16 40	0030	4.8	11.6		1	8.00	101	0.390	0.040	0.017	0.011
72/07/23	17 55	0000			66	730	8.10	83	0.090	0.050	0.010	0.006
	17 55	0004	24.7	10.4		730	8.10	83	0.100	0.050	0.016	0.006
	17 55	0015	23.7	10.4		730	8.00	94	0.320	0.100	0.007	0.004
	17 55	0050	11.0	10.4		800	7.50	93	0.340	0.090	0.008	0.005
	17 55	0100	7.2	12.0		810	7.40	93	0.340	0.090	0.010	0.005
	17 55	0200	4.2	12.4		830	7.40	94	0.390	0.070	0.010	0.008
	17 55	0317	3.9	13.0		830	7.30	95	0.400	0.050	0.011	0.010
72/10/14	16 10	0000			216	800	8.05	78	0.280	0.040	0.011	0.007
	16 10	0004	12.6	16.2		800	8.05	78	0.280	0.040	0.011	0.006
	16 10	0015		10.0		800	8.10	79	0.280	0.040	0.008	0.006
	16 10	0030	12.6	10.0		790	8.10	80	0.280	0.040	0.009	0.007
	16 10	0050	12.6	8.0		800	8.10	78	0.270	0.020	0.010	0.005
	16 10	0075	12.5	10.1		810	7.95	80	0.310	0.030	0.009	0.006
	16 10	0100	11.4	8.0		800	7.95	79	0.320	0.030	0.011	0.010
	16 10	0150	8.9	[illegible]		810	7.80	79	0.360	0.030	0.010	0.007
	16 10	0200	4.7	[illegible]		825	7.80	85	0.400	0.020	0.012	0.010
	16 10	0250	4.2	13		825	7.80	83	0.400	0.020	0.013	0.011
	16 10	0323	4.0	11.8		850	7.80	82	0.400	0.030	0.014	0.013

DATE FROM TO	TIME OF DAY	DEPTH FEET	32217 CHLRPHYL A UG/L
72/05/16	16 40	0000	0.2J
72/07/23	17 55	0000	10.4J
72/10/14	16 10	0000	5.4J

J VALUE KNOWN TO BE IN ERROR

STORET RETRIEVAL DATE 74/11/26

363503
42 25 06.0 076 52 46.0
SENECA LAKE
36 NEW YORK

11EPALES
3

2111202
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00300 DO MG/L	00077 TRANSP SECCHI INCHES	00094 CNDUCTVY FIELD MICROMHO	00400 PH SU	00410 T ALK CACO3 MG/L	00630 NO2&NO3 N-TOTAL MG/L	00610 NH3-N TOTAL MG/L	00665 PHOS-TOT MG/L P	00666 PHOS-DIS MG/L P
72/05/16	16 00	0000	5.5	12.6	207	1	7.90	100	0.390	0.030	0.020	0.012
	16 00	0010	5.0	13.2		1	8.00	100	0.370	0.030	0.017	0.013
	16 00	0030	4.0	11.8		1	7.90	99	0.390	0.030	0.017	0.011
72/07/23	16 55	0000			60	750	8.10	87	0.120	0.040	0.012	0.006
	16 55	0004	23.1	13.2		750	8.10	86	0.120	0.040	0.018	0.005
	16 55	0015	19.0	10.8		770	7.90	95	0.180	0.040	0.017	0.008
	16 55	0050	10.4	10.2		800	7.40	94	0.310	0.080	0.008	0.005
	16 55	0100	7.0	9.6		830	7.30	93	0.340	0.080	0.010	0.005
	16 55	0200	4.5	12.2		830	7.30	92	0.380	0.040	0.011	0.011
	16 55	0317	4.2	12.0		830	7.30	93	0.400	0.040	0.012	0.012
72/10/13	15 50	0000				725	8.25	98	0.290	0.040	0.008	0.006
	15 50	0004	12.6	8.8		750	8.25	94	0.300	0.040	0.007	0.005
	15 50	0015	12.6	9.7		700	8.25	95	0.290	0.050	0.008	0.005
	15 50	0025	12.6	10.2		700	8.25	95	0.290	0.040	0.008	0.005
	15 50	0040	12.6	10.0		700	8.20	97	0.290	0.040	0.008	0.006
	15 50	0060	12.5	10.1		700	8.20	95	0.300	0.040	0.008	0.005
	15 50	0075	12.2	10.2		700	8.20	98	0.300	0.040	0.010	0.005
	15 50	0100	11.9	10.4		700	8.15	97	0.330	0.030	0.009	0.006
	15 50	0150	10.7	10.6		700	8.05	95	0.350	0.030	0.008	0.005
	15 50	0200	9.3	10.6		730	8.00	92	0.350	0.030	0.008	0.006
	15 50	0250	8.0	11.2		730	7.95	93	0.400	0.030	0.009	0.007
	15 50	0300	5.5	11.6		750	7.90	92	0.410	0.030	0.010	0.008
	15 50	0323	4.5	11.5		750	7.85	93	0.420	0.040	0.012	0.010

DATE FROM TO	TIME OF DAY	DEPTH FEET	32217 CHLRPHYL A UG/L
72/05/16	16 00	0000	0.2J
72/07/23	16 55	0000	18.3J
72/10/13	15 50	0000	3.0J

J VALUE KNOWN TO BE IN ERROR

APPENDIX C

TRIBUTARY and WASTEWATER TREATMENT PLANT DATA

STORET RETRIEVAL DATE 74/11/26

3635A1 LS3635A1
42 21 30.0 076 50 30.0
JOHNS CREEK
36 7.5 MONTOUR FALL
I/SENECA LAKE
SKYLINE DR BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	11 25		0.380	0.400	0.092	0.011	0.100
72/12/02	14 00		0.770	0.240	0.010	0.009	0.018
73/01/03	12 00		0.830	0.200	0.056	0.021	
73/01/04	12 00		0.930	0.140	0.012	0.010	0.019
73/03/03	10 00		0.900	0.440	0.029	0.019	0.090
73/04/07	10 00		0.730	3.900	0.068	0.013	0.070
73/04/21	10 00		0.500	0.230	0.006	0.007	0.020
73/05/05	12 00		0.460	0.440	0.021	0.005K	0.010
73/05/18	10 00		0.390	0.460	0.014	0.006	0.020
73/06/16	12 00		0.700	1.380	0.028	0.013	0.030
73/07/07	12 30		1.100	0.740	0.026	0.020	0.035
73/09/15	10 00		0.840	0.660	0.038	0.008	0.070
73/10/13	10 00		1.320	0.400	0.016	0.005K	0.005

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635R1 LS3635R1
42 21 00.0 076 50 30.0
DIVERSION CHANNEL
36 7.5 MONTOUR FALL
I/SENECA LAKE
ST HWY 224 BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	11 10		0.700	0.350	0.189	0.006	0.021
72/12/02	14 30		1.060	0.540	0.035	0.008	0.021
73/01/03	10 30		0.770	1.470	0.058	0.018	
73/01/04	11 30		1.160	0.265	0.064	0.011	0.028
73/03/01	13 30		1.220	0.920	0.154	0.027	0.090
73/04/07	10 30		0.890	0.300	0.013	0.012	0.075
73/04/21	10 30		0.810	0.160	0.005K	0.005K	0.015
73/05/05	11 00		0.620	0.350	0.015	0.005K	0.015
73/05/19	10 15		0.540	0.460	0.013	0.005K	0.010
73/06/16	12 30		0.357	0.780	0.016	0.005K	0.010
73/07/07	11 00		0.380	1.470	0.050	0.011	0.015
73/09/15	10 30		0.550	0.790	0.027	0.006	0.030
73/10/13	11 00		0.126	0.580	0.023	0.006	0.006

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635C1 L53635C1
42 21 00.0 076 51 00.0
CATHERINE CREEK
36 7.5 MONTOUR FALL
I/SENECA LAKE
MED DUTY RD BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	10 35		0.543	0.250	0.077	0.009	0.039
72/12/02	10 10		0.680	0.420	0.086	0.008	0.030
73/01/04	12 15		1.140	0.230	0.056	0.014	0.044
73/02/03	11 30		1.580	0.750	0.086	0.050	
73/03/03	11 00		1.100	0.920	0.147	0.020	0.175
73/04/07	11 30		0.980	0.440	0.100	0.021	0.060
73/04/21	11 00		0.180	0.400	0.084	0.017	0.055
73/05/05	10 30		0.490	0.800	0.043	0.009	0.030
73/05/18	11 00		0.690	0.330	0.009	0.009	0.020
73/06/16	10 00		0.310	1.200	0.050	0.005K	0.015
73/07/07	10 30		0.240	0.940	0.037	0.011	0.025
73/09/15	11 00		0.330	0.820	0.031	0.008	0.065
73/10/13	12 00		0.150	0.440	0.020	0.005K	0.005K

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635D1 LS3635D1
42 21 00.0 076 51 00.0
SHEQUAGA CREEK
36 7.5 MONTOUR FALL
I/SENECA LAKE
SULLIVAN TRAIL BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	12 10		0.182	0.300	0.046	0.005K	0.011
72/12/02	12 30		0.920	0.720	0.035	0.005K	0.005K
73/01/04	11 15		0.960	0.160	0.040	0.008	0.021
73/02/03	10 00		0.790	0.560	0.050	0.020	
73/03/03	12 00		0.950	0.380	0.042	0.012	0.045
73/04/07	13 00		0.840	0.175	0.008	0.008	0.025
73/04/21	11 30		0.590	0.180	0.009	0.010	0.015
73/05/05	10 00		0.590	0.260	0.010	0.016	0.020
73/05/18	12 00		0.490	0.235	0.005K	0.009	0.010
73/06/16	13 00		0.530	1.200	0.005K	0.005K	0.010
73/07/07	10 00		0.230	1.760	0.052	0.008	0.010
73/09/15	12 30		0.280	0.840	0.034	0.011	0.075
73/10/13	13 10		0.012	0.250	0.005K	0.005K	0.005

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635E1 LS3635E1
42 22 30.0 076 52 30.0
GLEN CREEK
36 7.5 BEAVER DAMS
T/SENECA LAKE
LGT DUTY RD BRDG OFF ST HWY 329
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	16 15		0.104	0.100K	0.035	0.005K	0.012
72/12/02	10 03		0.310	0.920	0.023	0.007	0.017
73/01/03	09 45		0.340	1.890	0.050	0.009	
73/01/04	11 00		0.330	0.205	0.028	0.008	0.028
73/03/03	10 30		0.440	0.420	0.067	0.042	0.075
73/04/07	09 10		0.360	0.380	0.078	0.018	0.075
73/04/21	11 15		0.190	0.200	0.017	0.007	0.015
73/05/05	09 50		0.147	0.200	0.014	0.005K	0.010
73/05/18	11 00		0.150	0.500	0.020	0.006	0.010
73/06/16	09 50		0.160	0.290	0.012	0.005K	0.015
73/07/07	10 10		0.147	1.400	0.046	0.009	0.020
73/09/15	09 30		0.092	0.395	0.015	0.005K	

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635F1 LS3635F1
42 29 30.0 076 55 30.0
BIG STREAM
36 7.5 READING CENT
T/SENECA LAKE
GLENORA PT BELO GLENORA FALLS
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	15	30	0.540	0.750	0.130	0.120	0.147
72/12/02	11	15	1.340	0.220	0.032	0.045	0.056
73/01/03	10	30	0.910	1.320	0.072	0.035	0.225
73/01/04	11	30	1.460	0.270	0.029	0.046	0.067
73/03/03	10	45	1.260	0.370	0.079	0.052	0.075
73/04/07	09	50	1.280	0.250	0.033	0.024	0.045
73/04/21	11	20	0.940	1.030	0.357	0.069	0.090
73/05/05	09	30	0.660	0.300	0.006	0.039	0.055
73/05/18	11	30	0.470	0.610	0.013	0.048	0.070
73/06/16	10	00	1.520	0.820	0.110	0.147	0.165
73/07/07	10	45	0.620	2.000	0.040	0.126	0.150
73/09/15	10	00	0.660	1.980	0.021	0.230	0.450
73/10/13	11	45	0.189	0.380	0.008	0.151	0.185

STORET RETRIEVAL DATE 74/11/26

3635F2 LS3635F2
42 31 30.0 076 59 30.0
BIG STREAM
36 7.5 DUNDEE
T/SENECA LAKE
PREEMPTION RD BRDG ABOV DUNDEE STP
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	14 40		0.360	0.600	0.140	0.005K	0.018
72/12/02	10 45		0.720	0.400	0.016	0.005K	0.007
73/01/03	12 00		0.620	1.065	0.056	0.025	
73/01/04	10 30		0.710	0.210	0.027	0.005K	0.016
73/03/03	11 00		0.690	0.260	0.039	0.012	0.035
73/04/21	12 00		0.390	0.260	0.026	0.007	0.020
73/05/05	11 00		0.310	0.710	0.240	0.006	0.015
73/05/18	10 30		0.231	0.880	0.021	0.009	0.015
73/06/16	11 00		0.399	0.750	0.046	0.014	0.035
73/07/07	12 20		0.336	0.420	0.028	0.026	0.040
73/09/15	10 30		0.168	0.320	0.015	0.012	0.040
73/10/13	12 20		0.010K	0.420	0.018	0.008	0.025

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635F3 LS3635F3
42 30 00.0 076 57 30.0
BIG STREAM
36 7.5 READING CENT
T/SENECA LAKE
BRDG BELO DUNDEE STP
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	15 50		0.760	0.550	0.110	0.038	0.067
73/05/05	10 00		0.680	1.700	0.680	0.050	0.082
73/06/16	10 30		1.140	1.600	0.570	0.325	0.360
73/09/15	10 15		1.460	0.720	0.105	0.520	0.590
73/10/13	11 20		1.320	0.690	0.063	0.452	0.512

STORET RETRIEVAL DATE 74/11/26

3635G1 LS3635G1
42 30 00.0 076 53 30.0
SAWMILL CREEK
36 7.5 READING CENT
T/SENECA LAKE
BRDG NEAR PEACH ORCHARD POINT
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	14 00		0.290	0.125	0.050	0.005K	0.005K
72/12/02	11 00		0.357	0.600	0.010	0.006	0.006
73/01/03	14 00		0.630	0.720	0.038	0.018	
73/01/04	13 00		1.280	0.100K	0.005K	0.005K	0.009
73/03/03	12 30		0.810	0.220	0.028	0.008	0.015
73/04/07	09 00		0.580	2.000	0.115	0.007	0.030
73/04/21	12 00		1.300	0.100K	0.015	0.005K	0.005K
73/05/05	13 00		0.670	2.100	0.082	0.005K	0.005K
73/05/18	13 00		0.560	0.930	0.033	0.005K	0.005
73/06/16	15 00		1.580	1.100	0.052	0.005K	0.005K
73/07/07	15 00		1.220	0.980	0.038	0.010	0.010
73/08/04	10 00		1.500	0.100K	0.016	0.010	0.010
73/09/15	13 00		0.890	0.520	0.035	0.006	0.015
73/10/13	15 00		0.730	0.150	0.011	0.007	0.007

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635H1 LS3635H1
42 36 00.0 076 55 30.0
PLUMB POINT CREEK
36 7.5 DUNDEE
T/SENECA LAKE
HALL RD BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	13 30		0.429	0.250	0.060	0.005K	0.019
72/12/02	13 10		1.040	0.150	0.020	0.008	0.023
73/01/06	15 27		2.000	0.330	0.033	0.009	0.017
73/02/04	10 36		1.220	0.210	0.026	0.010	0.045
73/03/04	11 05		0.930	0.820	0.080	0.022	
73/04/07	10 35		1.180	0.290	0.022	0.009	0.020
73/04/21	10 05		1.420	0.230	0.046	0.005K	0.005K
73/05/05	10 15		1.020	1.540	0.054	0.005K	0.010
73/05/19	11 10		1.150	0.230	0.008	0.008	0.010
73/06/03	15 10		0.870	0.520	0.015	0.005K	0.010
73/07/29	09 55		0.670	1.050	0.046	0.015	0.015
73/09/09	09 45		0.430	0.920	0.062	0.011	0.011

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635J1 LS3635J1
42 41 00.0 076 57 30.0
KEUKA LAKE OUTLET
36 7.5 DREEDEN
T/SENECA LAKE
BRDG BELO RR BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	13 15		0.482	0.500	0.102	0.030	0.080
72/12/02	12 50		0.800	0.200	0.015	0.016	0.038
73/01/06	15 05		0.570	0.360	0.042	0.017	0.042
73/02/04	10 20		0.910	1.760	0.015	0.011	0.050
73/03/04	10 43		2.700	1.260	0.105	0.039	
73/04/07	10 10		0.810	0.310	0.022	0.010	0.040
73/04/21	09 45		0.430	0.440	0.032	0.010	0.035
73/05/19	10 50		0.370	0.650	0.024	0.015	0.030
73/06/03	14 48		0.370	0.385	0.016	0.027	0.055
73/07/29	09 25		0.330	0.435	0.012	0.058	0.105
73/08/18	09 50			0.560	0.025	0.108	0.142
73/09/09	09 30		0.336	0.820	0.031	0.072	0.156
73/10/06	10 49		0.220	0.600	0.044	0.063	0.085

STORET RETRIEVAL DATE 74/11/26

3635J2 LS3635J2
42 39 30.0 077 01 30.0
KEUKA LAKE OUTLET
36 7.5 PENN YAN
T/SENECA LAKE
BRDG BELO PENN YAN STP
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/05			0.312	2.400	0.126	0.03[illegible]	0.044
72/12/02	12 30		0.480	0.420	0.054	0.020	0.041
73/01/04	12 00		0.430	0.275	0.040	0.013	0.031
73/02/03	12 00		0.810	0.390	0.083	0.022	0.075
73/02/04	10 30		0.410	0.370	0.033	0.018	0.035
73/03/04	11 17		0.570	0.720	0.073	0.029	0.070
73/04/21	11 00		0.370	0.380	0.037	0.010	0.030
73/05/05	12 15		0.580	0.340	0.040	0.013	0.030
73/05/18	12 00		0.490	0.380	0.147	0.036	0.055
73/06/16	13 45		0.336	2.200	0.078	0.005K	0.040
73/07/07	12 15		0.520	0.745	0.126	0.132	0.175
73/08/04	11 45		0.410	1.100	0.147	0.154	0.200
73/09/15	11 15		0.440	1.600	0.198	0.120	0.157
73/10/13	11 00		0.320	0.880	0.189	0.120	0.130

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635J3 LS3635J3
42 39 30.0 077 03 00.0
KEUKA LAKE OUTLET
36 7.5 PENN YAN
T/SENECA LAKE
ST HWY 14A BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/05	11 10		0.280	0.350	0.080	0.005K	0.010
72/12/02	14 00		0.330	0.360	0.020	0.005K	0.006
73/01/04	13 38		0.340	0.250	0.005K	0.005K	0.009
73/02/03	13 00		0.590	0.350	0.018	0.009	0.040
73/03/03	12 30		0.610	0.240	0.037	0.006	0.015
73/04/07	13 00		0.430	0.820	0.038	0.005K	0.015
73/04/21	12 30		0.350	0.340	0.014	0.005K	0.020
73/05/05	13 30		0.360	0.245	0.013	0.005K	0.010
73/05/18	13 00		0.360	1.150	0.024	0.005K	0.010
73/06/16	13 30		0.273	1.320	0.020	0.005K	0.010
73/07/07	13 20		0.140	1.260	0.060	0.011	0.020
73/08/04	13 00		0.079	0.765	0.036	0.016	0.016
73/09/15	13 00		0.105	0.290	0.024	0.005K	0.015

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635K1 LS3635K1
42 46 00.0 075 58 00.0
KASHONG CREEK
36 7.5 GENEVA SOUTH
T/SENECA LAKE
ST HWY 14 BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	12 40		0.567	0.850	0.064	0.012	0.031
72/12/02	12 35		5.200	0.100K	0.037	0.024	0.036
73/01/06	14 50		4.400	0.100K	0.043	0.024	0.030
73/02/04	10 00		4.300	0.460	0.058	0.029	0.065
73/03/04	10 30		3.500	1.800	0.160	0.056	
73/04/07	09 45		4.400	0.580	0.052	0.023	0.040
73/04/21	10 30		2.300	0.800	0.026	0.008	0.020
73/05/05	09 30		2.600	0.500	0.009	0.014	0.025
73/05/19	10 25		1.660	0.930	0.036	0.008	0.015
73/06/03	15 30		1.540	0.500	0.005K	0.014	0.020
73/08/18	10 55			0.670	0.026	0.019	0.075
73/09/09	10 10		1.680	0.820	0.048	0.007	0.007
73/10/06	11 04		0.075	1.760	0.044	0.014	

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635L1 LS3635L1
42 40 30.0 076 53 00.0
INDIAN CREEK
36 7.5 DRESDEN
T/SENECA LAKE
LAKE RD BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	14	23	0.200	0.300	0.050	0.007	0.016
72/12/02	14	30	0.760	0.100K	0.005K	0.010	0.020
73/01/06	09	45	0.780	0.220	0.008	0.006	0.009
73/02/04	11	21	1.160	0.320	0.014	0.011	0.030
73/03/04	10	47	1.320	0.960	0.078	0.022	0.095
73/04/07	11	32	1.200	0.130	0.016	0.013	0.015
73/04/21	10	30	0.420	0.200	0.008	0.005K	0.005K
73/05/05	17	20	0.250	0.190	0.005K	0.005K	0.010
73/05/19	19	20	0.430	0.670	0.008	0.009	0.055
73/06/03	11	02	0.390	1.200	0.017	0.005K	0.005K
73/07/29	10	50	0.252	0.480	0.006	0.010	0.017
73/08/19	14	02		1.380	0.015	0.016	0.016
73/09/09	10	48	0.034	0.800	0.027	0.007	0.010
73/10/06			0.019	0.310	0.064	0.023	0.045

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635M1 LS3635M1
42 25 00.0 076 52 00.0
HECTOR FALLS
36 7.5 BURDETTE
T/SENECA LAKE
ST HWY 414 BRDG
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/04	13 40		0.247	0.150	0.039	0.005K	0.015
72/12/02	11 30		0.390	0.460	0.028	0.006	0.006
73/01/03	13 00		0.530	0.580	0.032	0.012	0.055
73/01/04	12 45		0.420	0.200	0.012	0.005K	0.015
73/03/03	13 00		0.640	0.260	0.022	0.009	0.040
73/04/07	09 30		0.450	0.170	0.010	0.006	0.025
73/04/21	13 00		0.273	0.190	0.006	0.005K	0.015
73/05/05	14 00		0.198	0.280	0.010	0.005K	0.010
73/05/18	14 00		0.189		0.008	0.005K	0.010
73/06/16	11 30		0.294	0.440	0.010	0.006	0.020
73/07/07	13 30		0.310	1.800	0.056	0.009	0.015
73/08/04	11 00		0.147	0.390	0.040	0.013	0.020
73/09/15	15 00		0.430	0.690	0.020	0.012	0.040
73/10/13	17 00		0.024	0.920	0.017		0.005

K VALUE KNOWN TO BE LESS
THAN INDICATED

STORET RETRIEVAL DATE 74/11/26

3635N1 LS3635N1
42 57 30.0 076 58 30.0
MARSH CREEK
36 7.5 GENEVA SOUTH
T/SENECA LAKE
US 50 & NY 20W E OF GENEVA
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/05	08 45		0.350	0.800	0.190	0.092	0.180
72/12/02	13 00		1.640	0.640	0.069	0.031	0.076
73/01/06	12 20		1.860	0.610	0.078	0.029	0.073
73/02/04	09 45		2.100	0.720	0.078	0.037	0.125
73/03/04	11 00		2.130	1.150	0.154	0.058	0.260
73/04/08	10 30		1.600	0.610	0.034	0.030	0.065
73/04/21	15 00		0.320	0.810	0.036	0.052	0.155
73/05/05	13 30		1.400	0.920	0.050	0.035	0.110
73/05/19	13 30		0.450	0.580	0.058	0.052	0.110
73/06/03	13 00		0.490	0.980	0.115	0.070	0.198
73/07/29	10 00		0.290	0.560	0.077	0.108	0.145
73/08/22	10 30			1.890	0.370	0.198	0.350
73/09/09	09 45		0.115	1.200	0.198	0.042	0.075
73/10/06	11 01		0.320	2.000	0.420	0.120	0.400

STORET RETRIEVAL DATE 74/11/26

3635N2 LS3635N2
42 54 00.0 077 58 30.0
MARSH CREEK
36 7.5 GENEVA NORTH
T/SENECA LAKE
ON RT 14N ABOVE AGWAY PLANTSTP
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
72/11/05	09 05		0.280	0.450	0.054	0.034	0.060
72/12/03	13 30		1.880	0.230	0.029	0.023	0.036
73/01/06	12 45		2.100	0.385	0.054	0.015	0.033
73/02/04	10 45		2.400	0.660	0.037	0.026	0.080
73/03/04	10 30		1.900	1.200	0.092	0.063	
73/04/08	11 30		2.200	0.440	0.035	0.022	0.045
73/04/21	14 00		0.105	0.420	0.014	0.011	0.035
73/05/05	12 00		1.460	0.520	0.020	0.018	0.050
73/05/19	16 00		0.110	0.420	0.020	0.009	0.030
73/06/03	13 30		0.520	0.960	0.022	0.094	0.165
73/07/29	09 30		0.140	0.800	0.025	0.015	0.035
73/08/22	10 45			0.340	0.026	0.020	0.030
73/09/09	09 00		0.189	0.820	0.072	0.013	0.030
73/10/06	09 45		0.160	0.380	0.040	0.009	0.035

STORET RETRIEVAL DATE 74/11/26

3635Z1 LS3635Z1
42 56 30.0 076 52 00.0
CAYUGA SENECA CANAL
36 7.5 GENEVA S
0/SENECA LAKE
RT 96A BRDG AT SENECA PARK
11EPALES 2111204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P
73/04/07	10 30		0.410	0.690	0.270	0.009	0.025
73/04/22	09 15		0.310	1.320	0.042	0.005K	0.020
73/05/05	19 00		0.357	0.440	0.015	0.005K	0.020
73/05/20	20 07		0.300	0.350	0.026	0.011	0.025
73/06/03	09 55		0.273	1.150	0.042	0.008	0.025
73/08/22				0.720	0.042	0.013	0.020
73/09/09	09 50		0.056	0.580	0.026	0.009	0.025
73/10/06			0.130	0.420	0.044	0.006	0.020

K VALUE KNOWN TO BE LESS THAN INDICATED

STORET RETRIEVAL DATE 74/11/27

363551 P0363551 P001470
42 43 30.0 076 58 30.0
DUNDEE
36 7.5 DUNDEE
T/SENECA LAKE
BIG STREAM
IIEPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/01/11	13 30		0.750	8.000	0.147	2.700	3.450	0.275	0.400
73/02/08	10 00		2.600	26.000	1.680	3.400	4.500	0.350	0.285
73/03/07	15 00		0.850	9.200	0.760	3.300	4.000	0.323	0.310
73/04/11	14 00		1.100	9.000	0.300	2.800	3.400	0.404	0.359
73/05/09	10 00		0.525	8.300	0.360	3.300	3.950	0.340	0.370
73/06/06	14 00		0.240	11.000	0.810	3.550	4.500	0.349	0.346
73/07/12	11 00		0.030	12.600	2.100		4.500	0.224	0.293
73/08/01	13 00		0.030	8.800	0.700	3.300	3.780	0.228	0.227
73/09/05 CP(T)- 73/09/06	10 30 10 30		1.380	10.500		4.080	4.500	0.271	0.178
73/10/11	14 00		0.350	7.600	0.091	2.400	2.800	0.291	0.226
73/11/13	13 30		4.100	7.300	0.083	2.500	2.800	0.160	0.206
73/12/12	10 00		1.760	6.400	0.053	1.700	2.500	0.253	0.166
74/01/09	14 00		4.200	5.200	0.140	1.920	2.600	0.219	0.240

STORET RETRIEVAL DATE 74/11/27

363552 TF363552 P001600
42 21 00.0 076 51 00.0
MONTOUR FALLS
36 7.5 MONTOUR FALL
T/SENECA LAKE
CATHERINE CREEK/BARGE CANAL
11EPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
72/12/21	10 00								
CP(T)-			1.100	10.380	0.036	1.370	2.600	0.229	0.179
72/12/21	14 00								
73/01/11	10 00								
CP(T)-			0.670	16.000	4.075	2.000	3.800	0.136	0.172
73/01/11	14 00								
73/03/08	09 00								
CP(T)-			0.480	13.800	0.370	2.100	4.000	0.162	0.176
73/03/08	14 00								
73/04/10	10 00								
CP(T)-			1.160	12.600	0.545	1.580	3.350	0.201	0.176
73/04/10	14 00								
73/05/08	10 00								
CP(T)-			0.650	13.800	0.440	2.000	3.450	0.160	0.155
73/05/08	14 00								
73/06/05	09 00								
CP(T)-			0.450	16.000	2.900	2.100	3.700	0.142	0.151
73/06/05	14 00								
73/07/17	10 00								
CP(T)-			0.180	20.000	7.100	2.950	4.665	0.097	0.114
73/07/17	14 00								
73/08/09	10 00								
CP(T)-			0.150	24.000	9.850	2.350	2.350	0.088	0.096
73/08/09	16 00								
73/09/13	10 00								
CP(T)-			0.330	29.000	11.600	4.200	5.700	0.086	0.083
73/09/13	14 00								
73/10/17	10 00								
CP(T)-			0.310	27.000	14.800	3.900	6.100	0.093	0.084
73/10/17	14 00								
73/11/07	08 00								
CP(T)-			0.280	23.000	8.400	3.300	4.800	0.106	0.094
73/11/07	14 00								
73/12/12	08 00								
CP(T)-			0.520	17.000	5.100	2.000	3.000	0.100	0.094
73/12/12	14 00								

STORET RETRIEVAL DATE 74/11/27

363552 TF363552 P001600
42 21 00.0 076 51 00.0
MONTOUR FALLS
36 7.5 MONTOUR FALL
T/SENECA LAKE
CATHERINE CREEK/BARGE CANAL
11EPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
74/01/17	10 00								
CP(T)-			0.580	31.000	7.500	1.440	10.500	0.099	0.124
74/01/17	14 00								

50

STORET RETRIEVAL DATE 74/11/27

363553 PR363553 P016285
42 52 50.0 077 16 00.0
CANANDAIGUA
36 7.5 CANANDAIGUA
D/SENECA LAKE
SENECA LAKE
11EPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/01/12	08 00								
CP(T)-			0.273	1.680	0.810	1.600	3.800	2.310	2.260
73/01/12	13 00								
73/02/15	09 00								
CP(T)-			0.150	15.700	1.260	2.350	4.100	2.500	2.300
73/02/15	14 00								
73/03/13	08 00								
CP(T)-			0.360	12.600	0.195	1.680	3.000	2.300	2.100
73/03/13	18 00								
73/04/12	08 00								
CP(T)-			0.390	16.000	0.033	1.680	3.400	2.400	2.300
73/04/12	13 00								
73/05/15	09 00								
CP(T)-			0.060	18.000	2.300	2.500	4.400	2.100	2.200
73/05/15	14 00								
73/06/14	10 00								
CP(T)-			0.085	25.100	9.500	2.800	4.400	2.180	2.250
73/06/14	15 00								
73/07/12	08 00								
CP(T)-			0.020	16.800	4.200	2.100	3.000	2.100	2.200
73/07/12	13 00								
73/08/13	08 00								
CP(T)-			0.060	18.000	2.200	0.990	4.000	1.930	1.940
73/08/13	13 00								
73/09/12	08 00								
CP(T)-			0.230	19.000	3.500	2.000	2.800	1.820	1.940
73/09/12	13 00								
73/10/17	08 00								
CP(T)-			0.027	19.000	5.300	2.600	3.900	1.660	1.750
73/10/17	13 00								
73/11/13	08 00								
CP(T)-			0.130	18.500	5.000	1.890	3.600	1.670	1.710
73/11/13	13 00								
73/12/12	09 00								
CP(T)-			0.270	16.500	0.750	1.150	2.500	1.940	1.880
73/12/12	14 00								

51

STORET RETRIEVAL DATE 74/11/27

363553 PR363553 P016285
42 52 50.0 077 16 00.0
CANANDAIGUA
36 7.5 CANANDAIGUA
D/SENECA LAKE
SENECA LAKE
11EPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
74/01/15 CP(T)- 74/01/15	08 00 13 00		0.120	18.000	0.200	2.130	3.200	2.030	1.800

52A

STORET RETRIEVAL DATE 74/11/27

363554 PD363554 P001000
42 51 00.0 076 59 00.0
GENEVA CITY HPP (GENEVA)
36 7.5 GENEVA SOUTH
0/SENECA LAKE
SENECA LAKE
11EPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
72/12/27	08 00								
CP(T)-			1.720	22.000	0.690	2.100	6.150	3.060	3.300
72/12/27	16 00								
73/01/31	00 00								
CP(T)-			1.000	25.000	3.800	2.950	7.100	1.800	1.900
73/01/31	08 00								
73/02/28	00 00								
CP(T)-			0.910	24.000	4.600	3.000	6.600	1.900	2.160
73/02/28	08 00								
73/03/28	08 00								
CP(T)-			1.200	19.000	3.700	2.600	6.700	2.200	3.100
73/03/28	15 30								
73/04/25	08 00								
CP(T)-			0.710	22.000	3.400	2.800	7.400	2.100	3.200
73/04/25	15 30								
73/05/30	08 00								
CP(T)-			1.100	21.000	2.800	2.500	5.000	3.600	2.500
73/05/30	15 00								
73/06/27	08 00								
CP(T)-			0.690	22.000	5.100	2.700	4.800	2.000	2.300
73/06/27	15 15								
73/07/25	08 15								
CP(T)-			0.320	25.000	8.200	2.900	4.700	1.600	1.600
73/07/25	15 15								
73/08/29	08 00								
CP(T)-						2.220	2.800	1.600	1.500
73/08/29	15 15								
73/09/26	08 00								
CP(T)-			0.040	25.200	6.900	3.400	3.400	1.600	1.700
73/09/26	15 15								
73/10/31	08 15								
CP(T)-			0.180	22.000	11.000	0.120	4.350	1.600	1.500
73/10/31	15 15								
73/11/28	08 15								
CP(T)-			0.030	21.000	7.800	3.000	3.800	1.800	1.600
73/11/28	15 15								

53 A

STORET RETRIEVAL DATE 74/11/27

363554 PD363554 P001000
42 51 00.0 076 59 00.0
GENEVA CITY HPP (GENEVA)
36 7.5 GENEVA SOUTH
D/SENECA LAKE
SENECA LAKE
11EPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/12/27 CP(T)- 73/12/27	08 15 15		2.600	9.200	0.109	1.080	1.450	3.200	2.200

STORET RETRIEVAL DATE 74/11/27

363555 PR363555 P005000
42 23 00.0 076 52 00.0
WATKINS GLEN
36 7.5 BURDETT
D/SENECA LAKE
SENECA LAKE
11EPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
72/12/31	07	30							
CP(T)-			0.420	55.000	4.300	3.150	12.000	0.456	0.739
72/12/31	15	30							
73/01/31	07	30							
CP(T)-			0.860	24.000	5.000	5.100	12.000	0.441	0.392
73/01/31	15	30							
73/02/28	07	30							
CP(T)-			0.840	25.000L	2.000	4.300		0.430	0.471
73/02/28	15	30							
73/03/30	07	30							
CP(T)-			1.100	28.000	7.600	30.500	33.000	0.407	0.538
73/03/30	15	30							
73/04/30	07	30							
CP(T)-			0.785	25.000	0.930	7.120	14.700	0.409	0.525
73/04/30	15	30							
73/05/31	07	30							
CP(T)-			0.555	28.000	6.680	4.630	9.100	0.277	0.324
73/05/31	15	30							
73/06/29	07	30							
CP(T)-			0.720	30.500	8.500	6.100	10.000	0.337	0.314
73/06/29	15	30							
73/07/31	07	30							
CP(T)-			0.030	19.800	9.000	7.100	12.000	0.266	0.282
73/07/31	15	30							
73/08/31	07	30							
CP(T)-						5.800	9.000	0.124	0.253
73/08/31	15	30							
73/09/28	07	30							
CP(T)-			0.170	29.000	15.800	5.400	7.500	0.290	0.270
73/09/28	15	30							
73/10/31	07	30							
CP(T)-			0.140	32.000	0.024	0.180	13.500	0.301	0.258
73/10/31	15	30							
73/11/30	07	30							
CP(T)-			0.250	30.000	4.200	5.700	9.600	0.339	0.265
73/11/30	15	30							

STORET RETRIEVAL DATE 74/11/27

363555 PR363555 P005000
42 23 00.0 076 52 00.0
WATKINS GLEN
36 7.5 BURDETT
D/SENECA LAKE
SENECA LAKE
11EPALES 2141204
4 0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00630 NO2&NO3 N-TOTAL MG/L	00625 TOT KJEL N MG/L	00610 NH3-N TOTAL MG/L	00671 PHOS-DIS ORTHO MG/L P	00665 PHOS-TOT MG/L P	50051 FLOW RATE INST MGD	50053 CONDUIT FLOW-MGD MONTHLY
73/12/31 CP(T)- 73/12/31	07 30 15 30		0.920	36.000	7.400	4.300	7.250	0.300	0.355